

Triphala - Formulation of three fruits

Triphala (three fruits formulation) also known as “triphala churna, is a traditional Ayurvedic herbal formulation consisting of three fruits native to the Indian subcontinent: Amalaki (*Emblica officinalis*), Bibhitaki, (*Terminalia belerica*) and Haritaki (*Terminalia chebula*)^[1].

The combination of the three fruits has a synergistic effect to support digestive and many other systems as well.

Traditional uses of Triphala:

In Ayurveda practice, Triphala is used for gastric disorder such as in-digestion, poor food assimilation, cleansing of colon, constipation. It is also recommended to be used for Cardiovascular disorder, serum cholesterol reduction, ophthalmic infection, Liver dysfunction, Blood purifier^[2].

Amalaki^[3]

Botanical name - *Emblica officinalis*

Family – Euphorbiaceae

Chemical Composition:

Fruit is a well-known rich source of Vitamin C. Seeds contains fixed oil, phosphatides and an essential oil. Fruits, barks and leaves are rich in tannins.



Therapeutic Uses:

It is used in anemia, hyperacidity, peptic ulcer, dyspepsia, anorexia, diarrhoea, dysentery, hemorrhage, eye inflammations, irritability of bladder, leucorrhoea, spermatorrhoea, epitaxis, menorrhagia, jaundice, weak memory condition, oedema and liver condition.

Bibhitaki ^[4]

Botanical name - *Terminalia bellerica*
Roxb.

Family - Combretaceae

Chemical Composition

Fruit contains 17% tannin and gallo-tannic acid (colouring matter) and resin. Seeds contain greenish yellow oil.

Therapeutic Uses

Fruits are laxative, astringent, anthelmintic and antipyretic useful in hepatitis, bronchitis, asthma, dyspepsia, piles, diarrhoea, coughs, hoarseness of voice, eye diseases and scorpion-sting; used as a hair tonic.



Haritaki ^[5]

Latin name - *Terminalia chebula* Linn.

Family - Combretaceae

Chemical Composition

Fruit contains tannin up to 30 % chebulic acid and gallic acid and some purgative constituents of Anthraquinone.



Therapeutic Uses

It is useful in asthma, sore throat, eye disease, heart and bladder diseases, strangury, urinary discharges, ascites, biliousness, inflammation, bleeding piles, typhoid, constipation, anaemia, elephantiasis and delirium. The ripe fruits are purgative, tonic, carminative and strengthens the brain, eyes and gums. The unripe fruit is astringent and useful in dysentery and diarrhoea.

Clinical Study of Triphala:

Pulok et al., evaluated the therapeutic efficacy of Triphala on constipation and observed the positive results on the same. No toxicity and adverse drug reaction were observed in patients ^[6].

Grades Available: 35%, 40% Tannins

Specifications:

Botanical/ Scientific name	<i>Emblca officinalis, Terminalia bellerica, Terminalia chebula Linn</i>
Description	Brown to brownish black hygroscopic powder with characteristic odor
Identification	Titrimetry
Heavy metal	Not more than 20 ppm
Arsenic	Not more than 1 ppm
Lead	Not more than 10 ppm
Content of Tannins	35, 40%
Microbiological profile	As per JPN Food Regulation

References:

1. G. H. Naik, et al. In vitro antioxidant studies and free radical reactions of triphala, an ayurvedic formulation and its constituents. *Phytotherapy Research* 2005; 19(7): 582-586.
2. Vani, T. et al. Antioxidant properties of the Ayurvedic formulation triphala and its constituents. *Pharmaceutical Biology* 1997; 35 (5): 313-317.
3. Chen TS et al. 2009. Supplementation of *Emblca officinalis* (Amla) extract reduces oxidative stress in uremic patients. *Am J Chin Med.* 37(1):19-25.
4. Singh MP et al., "Ethno and Modern Pharmacological Profile of Baheda (*Terminalia bellerica*): A Review" *The Pharmaceutical and Chemical Journal*, 2018, 5(1):153-162
5. R.Rathinamoorthy et al., "Terminalia Chebula - Review on Pharmacological and Biochemical Studies" /*Int.J.PharmTech Res.*2014,6(1),pp 97-116.
6. Mukherjee PK et al., Clinical studies of triphala: A well known phytomedicine from India" *Iran J Pharmacol Therapeut* 2006;5:51-4.